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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,322	05/03/2001	Rex A. Nisbet	1378.0030000	5586

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WASHINGTON, DC 20005

EXAMINER

TORRES, MARCOS L

ART UNIT	PAPER NUMBER
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2687

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/847,322

Applicant(s)

NISBET, REX A.

Examiner

Marcos L Torres

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 22, 2004 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1, 5, 7, 11, 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talaro US005778318A in view of Kumaki 6473411 and further in view of Riley US006055437A.

As to claim 1, Talaro discloses a base station for a mobile radio system (see col. 1, lines 8-10), including: a plurality of repeaters that provide respective radio channels (see col. 8, lines 58-65); a station controller connected to each repeater; and a radio antenna system connected to the repeaters (see col. 9, lines 4-6); wherein the repeaters provide a control channel and a plurality of traffic channels for mobile users, with allocation of the control channel into the traffic channels (see col. 9, lines 7-31). Talaro does not specifically disclose that the re-allocation is done proactively or allocating initially provided traffic channel as new control channel. Kumaki discloses allocating a control channel in advance (see col. 14, lines 19-21). In an analogous art, Riley discloses allocating initially provided traffic channel as new control channel (see col. 3, lines 16-39). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine both references for an enhanced interference reduction for the simple purpose of having a clear communication.

As to claim 5, Talaro discloses a base station wherein: allocation of the control channel among the repeaters is determined by the station controller (see col. 9, lines 4-22).

As to claim 7, Talaro discloses the method wherein the base station: initially allocates the control channel and a plurality of traffic channel and reallocating initial control channel as a traffic channel (see col. 9, lines 7-31). Talaro does not specifically disclose that the re-allocation is done proactively or allocating an initial traffic channel as a new control channel. Kumaki discloses allocating a control channel in advance (see col. 14, lines 19-21). Riley discloses allocating an initial traffic channel as

a new control channel. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to change the control channel in order to avoid interference.

Regarding claim 11 is the corresponding method claims of apparatus claims 1. Therefore, claim 11 is rejected for the same reason shown above.

Regarding claims 14 and 18 are the corresponding radio network claims of method claims 7 and 11. Therefore, claims 14 and 18 are rejected for the same reason shown above.

5. Claims 3-4, 9-10 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talaro in view of Kumaki and further in view of Riley as applied to claims 1 and 7 above, and further in view of Hagio JP 407107539A.

As to claims 3 and 9, Talaro discloses everything claimed as explained above (see claims 1 and 7) except for a control channel is changed periodically or non-periodically among the repeaters in a random process. Hagio discloses that the control channel is changed periodically among the repeaters (see constitution). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to change the control channel in order to avoid interference.

As to claims 4 and 10, Talaro discloses a base station wherein: each repeater normally provides a traffic channel and the control channel is changed among the repeaters according to a predetermined process (see col. 9, lines 7-31). Hagio discloses changing the control channel intermittently (see constitution). Talaro or Hagio do not specifically discloses skipping those repeaters at which the traffic channel is busy.

However, OFFICIAL NOTICE is taken that using free channel and skipping busy channel is a common and well-known technique. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to skip a busy channel and use a free channel in order to avoid interference.

Regarding claims 16-17, they are the corresponding apparatus claims of method claims 9-10. Therefore, claims 16-17 are rejected for the same reason shown above.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Talaro in view of Kumaki and further in view of Riley as applied to claims 1 and 7 above, and further in view of Newberg US006115365A.

As to claim 6, Talaro discloses a base station wherein: each repeater includes allocation of the control channel from one repeater to another (see col. 9, lines 7-31). Talaro do not specifically disclose that respective channel controllers determine the channel allocation. Newberg discloses repeater, which includes a controller (see col. 3, line 60 – col. 4, line 9). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teachings to have an intelligent repeater that uses free channels for an interference free communication.

7. Claim 2, 8, 12-13, 15 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talaro in view of Kumaki and further in view of Riley and further in view of Hagio as applied to claims 3-4 and 9-10 above, and further in view of Mullins.

As to claims 2, 8, 12-13 and 15, Talaro discloses everything claimed as explained above except for a method wherein: the predetermined process includes a round robin poll of traffic channels to locate a channel not currently busy with traffic.

Art Unit: 2687

Hagio discloses changing the control channel intermittently (see constitution). Mullins discloses the method wherein: the predetermined process includes a round robin poll of traffic channels to locate a channel not currently busy with traffic (see par. 0079).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teachings for the simple purpose of selecting a channel without interference.

As to claims 19-20, Talaro discloses a radio network including a base station (see col. 1, lines 8-11).

Conclusion

Any response to this Office Action should be mailed to:

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Or faxed to:

(703) 872-9306

for formal communication intended for entry, informal communication or draft communication; in the case of informal or draft communication, please label "PROPOSED" or "DRAFT"

Hand delivered responses should be brought to:

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcos L Torres whose telephone number is 703-305-1478. The examiner can normally be reached on 8:00am-6:00 PM alt. Wednesday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G Kincaid can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marcos L Torres
Examiner
Art Unit 2687


5/4/05
ELISEO RAMOS-FELICIANO
PATENT EXAMINER

Mlt